Entry Form "Finished Projects"

Applicant details:

Individual Applicant or Main Applicant
(The Main Applicant is the representative of a Group that participates in the Awards)

Name:	Rogers
Last name:	D.V.
If applicants are a group, full names of participating members:	
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How did you hear about VIDA?	Word of Mouth

Biography of the applicants

Web side of the applicant: http://allshookup.org

Biography or CV of the applicant/s (maximum 2.000 characters for individual applicants and 5.000 characters if the project belongs to a group)

D.V. Rogers (NZ/AUS) is an installation based, performance artist engineer working between the fields of geophysics, conceptual cultural theory, activism, engineering and social commentary. He is currently completing an MFA by Research at the College of Fine Arts, Sydney, Australia and during 2007 he was artist in resident with the US Geological Survey, Menlo Park, California, USA.

With a background in performance and installation, his most recent and major work was the seismic machine earthwork, 'Parkfield Interventional EQ Fieldwork' (PIEQF) which took place in the remote township of Parkfield, Central California during the year 02008.

Curriculum Vitae
http://allshookup.org/dvr

Wikipedia Entry
http://en.wikipedia.org/wiki/D.V._Rogers

Information about the project

Title of the Project: Parkfield Interventional EQ Fieldwork (PIEQF)

Date when the work was completed: 16th November 2008

Physical description of the project (2.000 characters maximum)

The Parkfield Interventional EQ Fieldwork (PIEQF) was a geologically interactive, seismic machine earthwork temporarily installed in the remote township of Parkfield, Central California, USA.

During 91 days of intervention between the 18th August and 16th November *02008 the installation reflected between 4000 and 4500 Californian seismic events. PIEQF was interfaced with the US Geological Survey (USGS) seismic monitoring network and triggered by near real-time reported earthquake waves from Magnitude (M) 0.1 and above.

The PIEQF involved excavating a trench measuring 50ft long x 30 ft wide x 6ft deep. Installed at the base of this trench a hydraulic powered earthquake shake table weighing 8000lbs (3600kgs) was positioned. This bi-axial earthquake simulation machine mechanically imitates the P-wave and S-wave characteristics of seismic waves up to magnitude (M) 6.0.

Attached to the shake table an array of thirty one, 5/8 (16mm) steel rods, standing at 10ft (3.0m) in height were connected to the table. These steel rods would oscillate and deflect with real-time reported seismic activity.

Each time a seismic event was detected by the USGS seismic monitoring network, the shake table would mechanically reflect seismic events. Magnitude determined duration and the larger the earthquake, the longer the shake table would function.

Vertical motion sensors were buried within the excavation. These Geophones enabled a feedback loop between the physical P-wave deflection of the shake table and the earthwork site creating mechanical S-waves.

Visitors to the site engaged with the installation by interacting with these sensors. When walked over or jumped upon these sensors triggered the vertical wave motion of the shake table. The effect was like watching mechanical waves propagate away from you; much like throwing stones in a still pond.

The Pacific Plate grinds northwest along the North American Plate at a rate of almost two inches per year. When the installation was not triggered by real-time reported seismic events or excited by visitors to the installation the top frame of the shake table would mechanically deflect one and a half inches northwest every fifteen seconds.

At night the shake table slept between 9.30pm and 6.30am. Overnight seismic events would be replayed at 6.30am every morning, the PIEQF would then assume 'live' mode and be triggered by near-realtime reported earthquake waves. The PIEQF was triggered between 30 seconds to 3 minutes after actual seismic events occured.

Conceptual description of the project (2.000 characters maximum)

In this NoW age of science fictional worlds, the convergence of real-time machine connectivity and the infinite spectrum of digital space has enabled the measurement and mapping of geophysical time.

Leaving No trace, the Parkfield Interventional EQ Fieldwork (PIEQF) was a geologically interactive machine earthwork. The premis behind the work was to bring all seismic events to a hypothetical epicentre and to the surface of the earth. During the intervention period of 91 days, all digitally recorded seismic ruptures occurring during this time in California were physically reflected through the earthquake shake table.

PIEQF was an expansion on the late 1960's American land art movement creating an art-science, site-specific machine earthwork. The installation was a telematic machine system conceptually mapping the terrain of spatio temporality of shifting tectonics and digital information networks which maps and monitors the seismic landscape of California.

This time-sharing performance machine system experimentally merged together the micro-seismic resonance of geological time and the autonomous operation of a ready-made modified machine creating a real time, science non-fictional, seismic machine earthwork. An autonomously controlled, machine action immersed within a seismically active landscape.

In the scales of time, and the temporal length of events, PIEQF was a microscopic blip on the radar of geological time. By its very nature, the activities and premis behind PIEQF was to create a representation of the NoW early 21st century age and the imminent collision of human - machine interactions occurring within our NoW technologized geophysical world.

"In this Now digital age, everything stands to end as bits and bytes of data' - Walter Benjamin *02009

7,862,400 seconds of analogue VCR recording visually captured this one quarter year period of 91 days. The installation was triggered by 4000 + / - 4500 Californian seismic events. Individual event IDS were allocated and have been archived by USGS databases. 43000 web cam .jpg frames were disseminated 'live' across the internet during the period of intervention.

* The Long Now Foundation uses five digit dates, the extra zero is to solve the deca-millennium bug which will come into effect in about 8,000 years.

Technical information about the project (2.000 characters maximum)

The Parkfield Interventional EQ Fieldwork (PIEQF) control system (SEIS) collected real-time reported Californian seismic data using Quake Data Distribution System (QDDS) and Quake Data Merge (QDM). This Java based software was developed by USGS earth scientists.

Custom software written in Python would continually parse a locally stored QDM archive of Californian only seismic events. When a 'new' seismic event was reported this Python script would pipe the magnitude value of reported seismic event to custom software algorithms written in the language C.

This SEIS output control algorithm computationally determined duration of shake table operation based on the following formula of magnitude equals duration;
"Secs at 0 distance = 10**((M+1.05)/2.22) "

These algorithms would calculate the output sequence of the shake table. After initial P-wave mechanical reflection of event, a feedback loop would be created locally via sensor feedback installed within the excavation creating the S-wave sequence of the shake table.

The buried Geophones installed around the site enabled visitors to to interactively engage with the installation. When walked over or jumped upon these sensors triggered the vertical motion of the shake table.

Another Python script was used to pipe any movement detected with these local ground displacement sensors, also triggering algorithms to drive the S-wave motion of the the shake table. The more pressure applied when jumping on these Geophones, the longer the shake table would mechanically function.

When the PIEQF control system was not reflecting real-time reported seismic events or being interactively engaged with by visitors to the installation the system would assume 'Harmonic Creep State'. This fixed control sequence enabled the shake table to creep one and a half inches northwest every fifteen seconds. This condition would take effect when the installation was not reflecting actual seismic events or being interactively engaged with by visitors to site of the installation.

The Parkfield Interventional EQ Fieldwork was two years in planning, culminating in 77 days to assemble and test, followed by 91 days of continuous operation and required only 8 days to dissassemble. Afterwards No trace was left in the landscape of Parkfield.

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http://pieqf.net
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Signature

Please read the rules of the competition and sign below:

signature D.V. Rogers

Your signature confirms that you understand and agree to abide by the rules of the VIDA competition.

Online Submission

If the applicant is doing an online submission to VIDA 11.0, he/she must email this completed Entry Form to : vida@telefonica.es

¿What is the URL to visualize video presentation and 5 photographs of the submitted project?: http://allshookup.org/vida12